

## REMARKS

Applicant appreciatively notes the Examiner's pointing out informalities in Claims 1, 6 and 8. Claim 1 has been canceled but all of the independent claims were reviewed and references to "the animal's" were amended to -- the dog's--. Similarly, the language "by means of" was deleted and appropriate substitute language was added.

The Examiner has rejected Claims 1-9 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,263,836 B1 to Hollis. The Examiner has stated that Hollis discloses a housing, first and second electrodes, a vibration sensor, control circuitry, a motion detector and appropriate circuitry to produce an aversive stimulus signal. The Examiner has also stated that Hollis does not explicitly refer to a vibration sensor, but "since vocalizations (sounds) inherently vibrate the surrounding medium (air in this case), it would be inherent to use a vibration sensor". Applicant respectfully disagrees. A microphone such as the microphone 14 described by Hollis may be sensitive to pressure variations in the air as a result of vocalizations (it is necessary for his microphone to respond to such air-borne pressure variations in view of the fact that he must provide a means for "recording voice input for dog behavior correction". (Column 4, lines 50 et seq.) In contrast, applicants' vibration sensor would be insensitive to such air-borne pressure variations. The vibration sensor 6 is supported by the housing and would be in physical contact with the dog's neck when applicants' housing is mounted on the neck with a collar. This physical contact with the surface of the dog's neck provides a means for mechanically detecting the vibrations transmitted through the tissues of the dog's neck and not merely an air-borne

sound wave.

This latter feature is important in applicants' system. The amplitude available to the circuitry as a result of this mechanical transmission of the barking wave readily permits applicant to analyze the wave and provide a determination of the existence or non-existence of a "valid bark". Further, the positioning of applicants' vibration sensor and the utilization of physical contact of the vibration sensor with the dog's neck precludes a very serious condition that would occur with the prior art such as Hollis; namely, if more than one dog is in the vicinity and is barking, particularly if a second or third dog were close to the dog under training, these "alien" barks would energize the microphone type detector and result in aversive stimulus to the dog. Such circumstance of course is completely unacceptable. Applicants' system cannot be triggered by such "alien" originating barks and will operate in spite of these unwanted sound sources. Further, extraneous sounds, other than barking sounds, would be detected by microphones such as Hollis, and if the sounds contained frequencies or characteristics inherent in a bark sound, the Hollis system would again produce unaccepted results by administering an aversive stimuli.

Hollis' system is mounted on the back of the animal, connected to a harness, and incorporates an accelerometer to detect motions inherent in digging and jumping. "The accelerometer 50 is used to determine two functions, digging and jumping up." (Column 5, lines 22 et seq.) There is no suggestion to utilize the accelerometer secured, mounted or attached in any way to the neck of the dog. Applicants have discovered that there is a characteristic

movement of a dog's head when they bark and that this characteristic movement can be detected by placing a motion detector in the housing that is attached to the animal's neck.

Hollis does not recognize or teach the detection of a bark followed by the determination of whether or not the detected sound is in fact a "valid bark"; further, there is no teaching nor suggestion of detecting a characteristic movement derived from the motion of the dog's neck to produce a bark-related motion signal. Finally, there is no teaching or suggestion that said motion signal be combined with a "valid bark" signal to develop an aversive stimuli.

Claims 1 and 2 have been canceled, independent Claim 3 has been amended to more specifically define applicants' invention. That is, the claim was amended to include the fact that the stimulus electrodes are in contact with the dog's skin, that the motion detector is mounted in the housing (which is supported by a collar for attachment to the dog's neck) and has been amended to incorporate the feature of combining the motion detection signals and the vibration detection signals to enable the production of aversive stimuli.

Claim 6 has been amended to include the limitation that the vibration sensed vocalizations are determined to be valid barks and that signals are produced in response to the detection of such valid barks. The claim is further amended to incorporate the positioning of the motion detector on the dog's neck to produce a motion detection signal and response to a characteristic movement of the neck. Independent Claim 8 has been amended to more specifically incorporate a vibration sensor and to place the motion detector in a fixed relationship

to the dog's neck. As stated previously, all of the independent claims have been amended to address the issues raised by the Examiner concerning informalities.

The drawings have been amended to add the reference numeral 40 that had inadvertently been left out of the drawings. Specifically, the reference numeral 40 was added to Fig. 3B as shown on the attached copy of Fig. 3B. The addition is shown in red. A replacement of the sheet containing Fig. 3B is also enclosed herewith.

In view of the above amendments and arguments, it is respectfully submitted that the claims as amended are in condition for allowance.

Respectfully submitted,

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A handwritten signature in black ink, appearing to be 'W. C. Cahill', written in a cursive style.

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AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings (sheet 3/11) includes changes to Fig. 3B. This sheet replaces the original sheet for Fig. 3B. In Fig. 3B, previously omitted element 40 has been added.

A Replacement Sheet and an Annotated Sheet Showing Changes are enclosed.

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